

ABSTRACT

A material spreading drive system for a hopper spreader having a conveyor and a spreader separately driven by two electric motors that are powered directly from the electrical system of the vehicle. The conveyor drive system includes a gearbox that transmits 90 to 95 percent of power received from the conveyor motor to the conveyor, thus reducing the demand on the electrical system. As a result, the electrical system is capable of also powering a second electric motor that drives the spreader. Due to the improved efficiency of the conveyor belt system, increased conveying and spreading speed are possible as well as independent control over the operating speeds of the conveyor and spreader.